

Enhancing Education Through Technology (EETT) Competitive Sub-grant Application Assurance Sheet

Project Title: Middle Grades Math Project Amount of Request: \$ 75,000
 District Name (Fiscal Agent for Consortiums): Lake Pend Oreille Number: 084
 Please list the school name, and indicate whether it is a targeted school or a partner school and
 certify the CIPA compliance for all participating schools within the project:

Dist. # or 'P' for Private School	School Name	This school is a targeted school 'T' or a partner school 'P'.		This school is in compliance with the CIPA as outlined on page 3 of the guidance document.	
084	Sandpoint Middle School	<input checked="" type="radio"/> T	<input type="radio"/> P	<input checked="" type="radio"/> YES	<input type="radio"/> NO
084	Lake Pend Oreille Alternative School	<input checked="" type="radio"/> T	<input type="radio"/> P	<input checked="" type="radio"/> YES	<input type="radio"/> NO
084	Clark Fork Jr/Sr High School	<input type="radio"/> T	<input checked="" type="radio"/> P	<input checked="" type="radio"/> YES	<input type="radio"/> NO
		<input type="radio"/> T	<input type="radio"/> P	<input type="radio"/> YES	<input type="radio"/> NO
		<input type="radio"/> T	<input type="radio"/> P	<input type="radio"/> YES	<input type="radio"/> NO
		<input type="radio"/> T	<input type="radio"/> P	<input type="radio"/> YES	<input type="radio"/> NO
		<input type="radio"/> T	<input type="radio"/> P	<input type="radio"/> YES	<input type="radio"/> NO
		<input type="radio"/> T	<input type="radio"/> P	<input type="radio"/> YES	<input type="radio"/> NO
		<input type="radio"/> T	<input type="radio"/> P	<input type="radio"/> YES	<input type="radio"/> NO
		<input type="radio"/> T	<input type="radio"/> P	<input type="radio"/> YES	<input type="radio"/> NO
		<input type="radio"/> T	<input type="radio"/> P	<input type="radio"/> YES	<input type="radio"/> NO

By signing below, I certify that we have contacted the charter and private schools in our area about participation in this grant and that we have an approved technology plan on file with the Idaho State Department of Education.

Superintendent Name (print) Dominic G. Cvitanich	E-mail Dick.Cvitanich@lposd.org	Telephone 208-263-5053
Signature 208-263-5053		
District Technology Coordinator Name (print) Doug Olin	E-mail Doug.Olin@lposd.org	Telephone 208-263-5053
Signature 		
Project Director Name – if different than District Technology Coordinator (print)	E-mail	Telephone
Signature		

ABSTRACT

The Middle Grades Math Project funded by this grant will improve student achievement in Math by providing students with the necessary technology to fully and equally utilize the rich multimedia resources available in the newly adopted Math curriculum. The project will provide teachers with the necessary professional development to maximize the power of the resources available through technology along with training on lesson development and planning for specific use of Math and technology in the classroom.

Goal: The Middle Grades Math Project will improve student achievement in Math in the middle grades (7-8), as measured by the ISAT and curriculum measurements provided by the new curriculum.

Lake Pend Oreille School District qualifies for this grant because a high percentage of our students come from families that are at or below the poverty line. Also, our district has two schools targeted for improvement or corrective action in the Math area. The middle grades are targeted because we are noticing a decrease in the percent of proficient students in Math. We are also noticing some sliding of students from the Basic category into the Below Basic category. Our district has never received an EETT Grant.

As a result of this grant, all 7th and 8th grade classrooms in the district will adopt the same technology, so all will have similar access to technology resources provided by our new curriculum. These classrooms are located in the following schools: Clark Fork Jr/Sr High, Lake Pend Oreille Alternative School and Sandpoint Middle School. Taken all together, this grant will serve over 500 students.

Our new Math curriculum has rich and deep multimedia features for full student engagement with the content. Teachers and students must be able to use the online tools, applications, and multimedia resources quickly, easily, and efficiently. To make the best use of the media rich material, students must use them in a one computer to one student ratio. To implement this one-to-one ratio, we will purchase web notebooks – enough for every 7th and/or 8th grade Math classroom in the district. Web notebooks are light, portable computers that are especially made to work on the Internet. This will allow teachers to integrate technology into the lessons daily and seamlessly, not on a once a week trip to the computer lab. Presentation equipment will be the key to effective implementation and successful use of the web notebooks. Teachers will use the presentation equipment to introduce Math concepts and model features of the web notebooks. Students will need support in a group setting to navigate and use the web tools that will provide their targeted Math instruction. The technology purchased with this grant will be sustained by the district. Once new technology is purchased, all the equipment becomes part of the district inventory and the web notebooks become part of the Refresh Program.

The success of the project will be documented by improvement in ISAT scores and curriculum activities and assessments. Success with the web notebooks and presentation equipment will encourage all disciplines to integrate technology seamlessly into their lessons. Students will join our community with 21st century skills they learn through this grant.

NARRATIVE – EDUCATIONAL NEED

The Middle Grades Math Project will improve student achievement in Math in the middle grades (7-8), as measured by the ISAT and curriculum activities and assessments.

Demographic Data: Lake Pend Oreille School District lies in the northern tip of the Panhandle covering an area just north of Athol to the Boundary County line of Idaho. The District has a 45% free and reduced lunch count and an average enrollment of about 3800 students.

Sandpoint Middle School has been identified as “Needs Improvement” for School Improvement Year 4. Lake Pend Oreille Alternative School has been identified as “Needs Improvement” for School Improvement Year 3.

According to ISAT results, this chart represents the percent of students in 7th and 8th grade in Math in each of the proficiency categories.

GRADE 7 - PERCENTAGES				
YEAR	BELOW BASIC	BASIC	PROFICIENT	ADVANCED
2005-2006	3.43	24.9	51.4	20.25
2006-2007	9.01	20.81	42.24	27.95
2007-2008	8.1	17.9	48.1	26.0
GRADE 8 – PERCENTAGES				
YEAR	BELOW BASIC	BASIC	PROFICIENT	ADVANCED
2005-2006	6.95	22.52	47.35	23.18
2006-2007	7.05	16.67	47.12	29.17
2007-2008	6.5	15.1	38.3	40.1

The classrooms receiving technology from this grant are located in the following schools: Clark Fork Jr/Sr High, Lake Pend Oreille Alternative School, and Sandpoint Middle School. There will be 10 teachers (Math and Special Education) receiving the professional development needed for implementation.

Upon closer examination of subgroup data for ISATs, Sandpoint Middle School and Lake Pend Oreille Alternative school have subgroups in need of improvement. Clark Fork Jr./Sr. High subgroup populations that are too small to be broken out in the score reporting.

Our district is adopting new Math curriculum this year, to be implemented Fall 09. From research done during the adoption process, it is clear to the Math committee members that publishers are creating resources especially suited to technology. With this grant, our teachers will receive the training to use the technology to its fullest potential and will receive training on lesson development and strategies to integrate technology into the classroom. Both trainings will be handled by professionals from the University of Idaho – one specializing in the use of the technology and the other specializing in lesson development and planning utilizing technology for maximum student engagement and different learning styles. This training is in tandem with that provided by the publisher of our newly adopted Math curriculum.

We have adopted a three TIER model of intervention for our Math curriculum:

TIER 1: 80% CORE instruction: The curriculum utilized within the classroom should reach most of the students to proficiency.

TIER 2: 15% Supported Instruction: There are 15% of students who need instruction that is supported by additional interventions.

TIER 3: 5% Intensive instruction: There are 5% of students who need intensive instruction – this could be for students that are performing two or more grade-levels below or above.

By implementing this powerful project, we expect to see improvement in ISAT scores and movement of students forward through the achievement categories. Because there are all sorts of learners in each TIER listed above, using all of the varied materials and strategies our Math curriculum includes will help teachers reach all learners regardless of TIER. We will also use technology delivered curriculum assessments and activities provided by our new curriculum to evaluate our success.

Classroom teachers are obviously responsible for TIER 1. Many schools are using separate educational settings for TIER 2 and 3 learners. At this time, Lake Pend Oreille School District students in TIER 2 will most likely be served in a regular classroom setting. Teachers will be responsible for differentiation of learning and targeted, prescriptive instruction. To be successful, teachers and students will need efficient access to the resources the curriculum will provide especially for those students. This grant will also be unique because it specifically includes Resource Room/Special Education teachers. This will provide a unified, articulated approach to Math and technology. Working together, all students will receive the best of research based curriculum.

We feel confident of positive results because we have seen improvement in the number of Advanced Proficiency students in all areas of the ISATs. We believe this improvement is due to the implementation of Upper Quartile programs in our elementary schools. We have also demonstrated success as a district by adopting the three TIER model in Reading. We expect to duplicate that success in Math. With the technology resources and training provided in this grant, our Math teachers will not only be able to reach all students in all TIERS right within the classroom – but they will also be able to teach staff in other disciplines the power of utilizing all the resources that come with each of our curriculums.

PROJECT NARRATIVE – SCOPE AND SEQUENCE – LOCAL DETAIL

Goal: The Middle Grades Math Project will improve student achievement in Math in the middle grades (7-8), as measured by the ISAT and curriculum assessments and activities.

Objectives:

1. Provide the 7th and 8th grade Math classrooms with the necessary technology to fully utilize the vast resources available in the new Math curriculum.
2. Provide equity of technology equipment across all the 7th and 8th grade Math classrooms.
3. Provide Math teachers with quality professional development to learn how to integrate technology in lesson development and planning to maximize student engagement.
4. Provide Math teachers with intensive training to use the specific resources related to technology developed by the publisher of the new Math curriculum.
5. Provide each student the use of their own web notebook in the Math classroom to use resources especially designed for technology.

Activities and Responsibilities:

1. Some classrooms already have Smart Boards, projectors, replacement bulbs, and wireless access. The grant provides this equipment to the classrooms that do not have all of the necessary items. This will ensure equity of technology resources across the district. This will be evaluated by checking the district tech inventory for each classroom to ensure equity. (Technology Director responsible)
2. Shawn Wright, Web Developer and Online Curriculum Designer with the University of Idaho will provide training on how to properly use the technology equipment. Mr. Wright has worked extensively in our district on other projects with great results. Evaluation of the training will be provided by the participants. Administrators will take note of the teachers integrating technology with their lessons during observations and evaluations. (Principals responsible)
3. Abe Wallin of the University of Idaho will provide training on lesson development and planning, and specific use of Math and technology in the classroom. He has a Master's Degree in C&I Mathematics and is wrapping up his PhD in that area. After work with Abe, teachers will use assessments and activities on line as provided by the new curriculum to evaluate student progress. (Principals responsible)
4. The Publisher of our adopted Math curriculum will provide extensive professional development on how to use the technology resources available with their products. This training is not sponsored by the grant; however, it is concurrent with grant training. The participants will evaluate the training. (Curriculum Director and Principals responsible)
5. Students will be able to explore all the resources available in the Math curriculum on a daily basis because all of the resources are available in the classroom. Students will be given time to work individually using a variety of the technology resources. This will be evidenced in the teacher's lesson plans. Evidence of activity will be recorded in the online activities provided by the curriculum. Teachers will run reports to share at professional development and with principals. (Teacher and Principal responsible)

Timeline:

February 2009	Tech department will order equipment to be onsite by April 2009. (Technology Director responsible)
April 2009	Curriculum Director, Judy Hull and Teacher Sandy Ross will meet with Professional Development providers to plan out exact dates and content. (Curriculum Director responsible)
May 2009	Installation of equipment will begin. (Technology Director responsible)
August 2009	Completion of equipment installations. (Technology Director responsible)
August 2009	Training begins on the use of the technology and integration into lesson development and planning. (Curriculum Director, Sandy Ross and trainers responsible)
September 2009	By the end of September, all 7 th and 8 th grade Math students will have used the online technology resources available with our Math adoption and will have completed a formative assessment or other activity provided by the Math adoption. (Principals and Teachers responsible)
October 2009	In-service days are dedicated to professional development provided by the Publisher of our Math curriculum. (Non-Grant sponsored activity) (Curriculum Director responsible)
October 2009	More professional development training provided by Shawn Wright and Abe Wallin (Curriculum Director and Sandy Ross responsible)
November 2009 – May 2010	Professional Development and training will continue - dates to be determined starting with the April 2009 meeting between Judy Hull and Sandy Ross (Curriculum Director and Sandy Ross responsible)

By May of 2010, our students will have used the online technology resources extensively. There will be measurements of academic achievement in previous ISAT assessments. The students will have taken formative and summative assessments provided by the Math adoption. By the end of May, there will be extensive assessment data: teacher assessment of daily work and projects, quarterly grades, and the assessments provided with the Math adoption materials.

We expect our goal of increasing student achievement on ISATs will be reflected in the 2010 Spring ISAT scores. We expect to document more students Proficient in Math and more Advanced Math students. We do not expect more students to be in the Basic or below Basic category. We also expect formative, summative and activity data generated from the new curriculum to show overall improvement in Math content and skills.

In May 2010, we will meet to summarize our findings, draw conclusions, and make plans for changes based on our findings.

SUSTAINABILITY

Lake Pend Oreille School District is committed to technology. From bake sales to levy line items, our district has obtained funds to support that commitment. Application for this grant is another step we wish to take to improve our technology programs. We have funding and support to sustain this grant in remarkable ways.

This project is sustainable beyond the scope of the grant because the district will:

- Include web notebooks as part of the district Refresh Program.
- Fully use intended technology funds for on site training - our funds will stretch further and reach more teachers
- Our district has ongoing, embedded professional development time as part of the contract day. This time is available in regular intervals and extended blocks for different types of professional development.
- Principals must encourage and support teachers integrating technology as part of our continuous School Improvement Plan.
- Math classes are core curriculum; therefore integration of technology into content so universal to every student will sustain the outcomes of this grant for the life of our curriculum adoption, and beyond. A standard or baseline of technology use is established, and sustained.
- Use Maintenance department to move the carts to other learning settings. The cooperation between departments of our district creates a subtle, but powerful energy for sustaining the technology and achievements of this grant. Our maintenance department regularly moves our existing moveable computers from schools to central office and back. In fact, the department recently purchased a special lift to move things more safely and easily. The web notebooks will be easy to transport. Now, to set up a professional development lab to train teachers will just take minutes.
- Our school district can again re-assert our role as a regional center in the North area for professional development in technology. Universities with outreach programs service programs in all areas of education will have the tools they need to conduct budget-friendly trainings right on site. This will deliver more training to more teachers, creating a bigger cadre of well trained teachers.
- 21st century on line learning skills are demanded from our students in post secondary settings. It does not matter if a student goes to work or to additional education, they will be trained or retrained using technology. Our community will sustain our use of the technology established by this grant.
- The district will provide ongoing technical support as it does for all technology in our district.

The experience and knowledge the project promotes will show up in teachers and students for years to come. After using the online resources, students will use those skills in other curricular areas. High school teachers will spend much less time orienting students to resources and more time teaching new content or additional extensions of the technology. Students will learn critical learning techniques with technology that will sustain them even in to post-secondary settings and the world. Math teachers will be able to easily use rich on-line resources and applications and efficiently develop lessons that integrate technology into their daily lessons.

BUDGET**Equipment Summary:**

Web Notebooks (class and Teacher)	105 x \$400	\$42,000
Smart boards	2 x \$1,310	\$ 2,620
(includes cables and shipping)		
Projector	1 x \$1,100	\$ 1,100
(includes extra bulb, mounting kit, shipping)		
Replacement Bulbs	5 x \$368	\$ 1,840
(for existing projectors)		
Wireless Access Points	3 x \$400	\$ 1,200
Charging Carts (includes shipping)		
Large size	2 x \$1,600	\$ 3,200
Small size	2 x \$1,400	\$ 2,800
Extra batteries (includes shipping)	10 x \$149	\$ 1,490
		TOTAL: \$ 56,250

Items for SMS Classrooms	Cost	SMS Total	\$28,868
Web Notebook Computers	58 x \$400	\$23,200	
Projector Bulbs	4 x \$368	\$ 1,472	
Wireless Access Point	1 x \$400	\$ 400	
Charging carts (large)	2 x \$1600	\$ 3,200	
Extra batteries	4 x \$149	\$ 596	
Items for CFHS Classrooms		CFHS Total	\$ 13,925
Web Notebook Computers	25 x \$400	\$10,000	
Projector Bulbs	1 x \$368	\$ 368	
Smart board	1 x \$1310	\$ 1310	
Wireless Access Point	1 x \$400	\$ 400	
Charging cart (small)	1 x \$1,400	\$ 1,400	
Extra batteries	3 x \$149	\$ 447	
Items for LPOAHS Classrooms		LPOAHS Total	\$9,457
Web Notebook Computers	12 x \$400	\$ 4,800	
Projector with extra bulb	1 x 1100	\$ 1,100	
Smart board	1 x \$1310	\$ 1,310	
Wireless Access Point	1 x \$ 400	\$ 400	
Charging cart	1 x \$1,400	\$ 1,400	
Extra batteries	3 x \$149	\$ 447	
Classroom Equipment Total		Class Equip Tot.	\$52,250
Professional Development			
Staff Release costs	10 staff @ \$75/day X 10	\$ 7,500	
Support costs, i.e., paper, refreshments	\$150 per day X 10	\$ 1,500	
Tech Trainer fee – Shawn Wright		\$ 4,875	
Math Trainer fee – Abe Wallin		\$ 4,875	
Professional Development Total		Prof Dev Total	\$18,750
Equipment for each teacher			
Web notebook computers	10 X \$400	\$ 4,000	
		Teach Total	\$4,000
		Grant Total	\$75,000

BUDGET NARRATIVE**Equipment**

To use the curriculum fully, each school site will have enough web notebooks and presentation equipment (Smart Board and projector) for each Math class. Not every Math classroom has all parts of presentation systems, and some equipment needs to be refreshed. At Sandpoint Middle School, each set of web notebooks will be shared by a grade, with no impact on frequency of use. Overall security for the lab notebooks will be provided by each site and is already in place. The district will bear the cost of additional power outlets, network access drops and other installation costs. As above, cables and shipping are included. Our district also has refreshed infrastructure across the district. No additional network access drops should be needed. The storage/security carts will charge the web notebooks, and extra batteries are included in the equipment list.

All costs for the one day evaluation in-service in Boise will be covered by the Lake Pend Oreille School District.

Professional Development

This grant will work in tandem with the professional development and training provided by the publisher of the newly adopted curriculum. However, the training provided by the grant will be much more specific to Math and technology. Having the training through the curriculum and the training on the technology in parallel will help teachers create powerful, multifaceted lessons. The group of teachers that participate in the training conducted with release time will be Math and Special Education teachers at the schools. Shawn Wright, Technology Trainer, will host two of his in service days outside of school time, so any teacher interested in integrating technology into the content areas may attend. The total Trainer fee includes all travel costs.

The last professional development day with Abe Wallin, in May of 2010, will include grant evaluation and assessment. We will utilize data from ISAT exams, on line documentation from the tools imbedded in the new curriculum to summarize success and make next steps.